WE CLAIM:

1. An AAV Rep78 mutant comprising an AAV Rep78 modified protein that possesses different biochemical and biological functions as compared to the wild-type AAV Rep78 protein.

2. The AAV Rep78 mutant of claim 1, wherein said AAV Rep78 modified protein binds to at least one DNA sequence obtained from one or more of a papillomavirus, an AAV, an oncogene or a HIV differently as compared to the binding of said wild-type AAV Rep78 protein.

3. The AAV Rep78 mutant of claim 2, wherein said different DNA binding is selected from the group consisting of no DNA binding, weak DNA binding and enhanced DNA binding as compared to the binding of said wild-type AAV Rep78 protein.

4. The AAV Rep78 mutant of claim 3, wherein said mutant having no DNA binding or weak DNA binding to said DNA sequence obtained from at least one of a papillomavirus, an AAV, an oncogene or a HIV that results in the generation of higher levels of AAV DNA replication and virion numbers.

5. The AAV Rep78 mutant of claim 3, wherein said mutant having enhanced DNA binding to said DNA sequence obtained from at least one of a papillomavirus or an oncogene that results in enhanced inhibition of at least one of a papillomavirus or an oncoprotein.

6. The AAV Rep78 mutant of claim 2, wherein said mutant is selected from the group consisting of a truncated wild-type AAV Rep78 protein, a wild-type AAV Rep78 protein containing amino acid substitutions, a wild-type AAV Rep78 protein containing internal amino acid deletions, and a combination thereof.

7. The AAV Rep78 mutant of claim 6, wherein said mutant is a truncated AAV Rep78 protein containing at least the minimum number of amino acids of the wild-type AAV Rep78 protein necessary to bind to said DNA sequence to obtain enhanced inhibition of a papillomavirus or an oncogene.

8. The AAV Rep78 mutant of claim 7, wherein said DNA sequence to which said mutant binds is a promoter region of said papillomavirus, said AAV or said oncogene.

9. The AAV Rep78 mutant of claim 8, wherein said papillomavirus promoter region is nucleotides 14-56 of p97 of HPV-16.

10. The AAV Rep78 mutant of claim 7, comprising at least two truncated wild-type AAV Rep78 linked to form a multimer AAV Rep78 mutant.

11. The AAV Rep78 mutant of claim 4, wherein said mutant is AAV Rep-77^{LG} , AAV Rep-79^{FA}.

12. The AAV Rep78 mutant of claim 5, wherein said mutant is AAV Rep-192^{HG}.

13. A fusion protein comprising the AAV Rep78 protein or said AAV Rep78 mutant of claim 1.

14. The fusion protein of claim 13, further comprising the *tat* protein of HIV linked to said AAV Rep78 mutant.

15. The fusion protein of claim 14, wherein said *tat* protein is the *tat* protein of HIV-1.

16. The fusion protein of claim 13, further comprising a maltose-binding protein (MBP) linked to said AAV Rep78 protein or said AAV Rep78 mutant.

17. The fusion protein of claim 16, further comprising the *tat* protein of HIV linked to said AAV Rep78 mutant.

18. The fusion protein of claim 17, wherein said *tat* protein is the *tat* protein of HIV-1.

19. A pharmaceutical composition comprising at least one AAV Rep78 mutant or said AAV Rep78 protein according to claim 1, in admixture with a pharmaceutically acceptable carrier.

20. A method of treating a papillomavirus-associated disease, cancer or a HIV-associated disease comprising administering said pharmaceutical composition of claim 19 to a patient afflicted with a papillomavirus-associated disease, cancer or a HIV-associated disease.

21. A DNA sequence encoding at least one AAV Rep78 mutant, AAV Rep78 protein or a fusion protein according to claim 1.

22. The DNA construct comprising said DNA sequence of claim 21 and a vector.

23. The DNA construct of claim 22, wherein said vector is selected from the group consisting of an AAV, a rAAV, a retrovirus, an adenovirus and a liposome.

24. The DNA construct of claim 22, further comprising an inducible promoter operably linked to said DNA sequence.

25. The DNA construct of claim 24, wherein said vector is selected from the group consisting of an AAV, a rAAV, a retrovirus, an adenovirus and a liposome.

26. The DNA construct of claim 24, wherein said inducible promoter is controlled by a viral protein or an oncoprotein.

27. A pharmaceutical composition comprising at least one of the DNA sequences of claim 21 in admixture with a pharmaceutically acceptable carrier.

28. A pharmaceutical composition comprising at least one of the DNA sequences of claim 22 in admixture with a pharmaceutically acceptable carrier.

29. A pharmaceutical composition comprising at least one of the DNA sequences of claim 24 in admixture with a pharmaceutically acceptable carrier.

30. A method of inhibiting a papillomavirus-associated diseases, cancer or a HIV-associated disease comprising administering said pharmaceutical composition of claim 28 to a patient afflicted with a papillomavirus-associated disease, cancer or a HIV-associated disease.

31. A method of inhibiting a papillomavirus-associated disease, cancer or a HIV-associated disease comprising administering said pharmaceutical composition of claim 29 to a patient afflicted with a papillomavirus-associated disease, cancer or a HIV-associated disease, wherein said inducible promoter is controlled by the expression of a papillomavirus protein, an oncoprotein or an HIV-associated protein in said patient as a result of said disease or cancer.

32. A DNA sequence comprising the full length AAV genome modified to replace the AAV Rep78 DNA sequence with said DNA sequence encoding said AAV Rep78 mutant of claim 21.

33. A DNA sequence comprising at least the minimum portion of the AAV genome sufficient to complement a defective rAAV, wherein said portion of the AAV genome is modified to replace the AAV Rep78 DNA sequence with said DNA sequence encoding said AAV Rep78 mutant of claim 21.

34. The DNA sequence of claim 33, wherein said DNA sequence encoding said AAV Rep78 mutant encodes an AAV Rep78 mutant that has no DNA binding or weak DNA binding to said DNA sequence obtained from at least one of a papillomavirus or an AAV or an oncogene that results in the generation of higher levels of AAV DNA replication and virion numbers.

35. A method of producing recombinant AAV (rAAV) comprising transducing a susceptible mammalian cell with a DNA sequence of claim 34 and a DNA sequence encoding said rAAV to obtain rAAV virions.

36. The method of claim 35, wherein said DNA sequence is sufficient to complement a defective rAAV comprises at least the AAV *lip-cap* gene and said DNA sequence encoding an AAV Rep78 mutant.

37. The method of claim 35, wherein said rAAV comprises a DNA sequence encoding a heterologous gene.

38. A method of treating a papillomavirus-associated disease, cancer or a HIV-associated disease comprising administering a pharmaceutical composition comprising a

AAV Rep78 protein to a patient afflicted with a papillomavirus-associated disease, cancer or a HIV-associated disease, wherein said AAV Rep78 protein binds to a papillomavirus promoter that controls the expression of a papillomavirus oncoprotein or binds to a promoter that controls the expression of an oncoprotein.

39. The method of claim 38, wherein said AAV Rep78 binds to nucleotides 14-56 of p97 of HPV-16 inhibiting expression of HPV.

40. An AAV Rep78 regulation element comprising the nucleotides shown in the nucleotide sequence of Figure 2, wherein said element provides the binding site for the AAV Rep78 protein.

41. The AAV Rep78 regulation element of claim 40 comprising about nucleotides 14 –56 of the nucleotide sequence of Figure 2.

42. An AAV Rep78 regulatable promoter comprising the regulation element of claim 40 and the remaining promoter sequences from a promoter other than the HPV-16 p97 promoter.

43. An AAV Rep78 regulatable promoter comprising the regulation element of claim 41 and the remaining promoter sequences from a promoter other than the HPV-16 p97 promoter.

44. A method of selecting an AAV Rep78 mutant that possesses different biochemical and biological functions as compared to the wild-type AAV Rep78 protein, wherein said method comprises:

contacting an AAV Rep78 mutant of claim 1 with at least one DNA sequence obtained from one or more of a papillomavirus, an AAV, a HIV or an oncogene for a period of time to allow binding of said mutant to said DNA; and

determining said binding of said mutant to select said mutant that binds differently to said DNA than said wild-type Rep78 protein.

45. The method of claim 44, wherein said wild-type Rep78 protein is contacted with the same at least one DNA sequence obtained from one or more of a papillomavirus, an AAV, a HIV or an oncogene as contacted with said mutant for a period of time to allow

binding of said mutant to said DNA; and compare the binding of said mutant with the binding of said wild-type Rep78 protein.